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ABOUT THE COVER



Ed Henderson, VE4YU, operates VE4TTU, the permanent station at the Touch the Universe exhibit at Winnipeg's Museum of Man and Nature. The full story appears on page 4.

It Seems to Us.../Il nous semble...

Dear Fellow Amateurs...

The following came to our desk early in April. We thought that VE6AWI made some interesting points, and we decided to let him share these on this page.

I have been a radio amateur since 1969, which almost qualifies me as an "old timer", so I feel I have some knowledge of the hobby from past as well as present times. What I see troubles me. I see the eroding of the "friendly airwaves" into a not-so-friendly no-man's land. I see self-appointed "keepers" of the airwaves who have forgotten a few of the cardinal rules of gentlemanly conduct on the air.

Even our hobby can be disturbed by well-meaning "do gooders" who have forgotten or perhaps never learned the basic rules of Amateur Radio operation.

One case in point is "net frequencies". I would be the last to say that nets should cease to operate, but they should operate in a gentlemanly way. Net frequencies are not allotted to anyone except by "gentleman's agreement". Not everyone cares about nets, and not everyone knows about all nets. We have, however, keepers of the frequencies who come on the air, interrupting a QSO to inform the parties that this is a net or a calling frequency, so please QSX. To my mind, this person is breaking rules by interrupting a QSO on a legally occupied frequency.

There are diplomatic ways to inform people about what they should be doing. One way is to break in when a QSO is finished and politely inform the parties that a net is carried on the frequency and that it would be appreciated if the frequency could be kept clear at time of the net.

This brings me to another point. On 20 metres, 14.140 is the Canadian calling frequency. I have no difficulty with this except that I have been interrupted while trying to establish a contact on this frequency, and told that I was on the calling frequency. Exactly. Many Spanish-speaking stations do not seem to care about the Canadian calling frequency. It seems to me that to reserve a frequency is to occupy the same. For this reason, it makes more sense to me to have a few Canadian stations talking on 14.140 MHz, stations that can be broken for a call—more sense than to have the frequency occupied by Spanish-speaking stations that cannot be broken.

In the recent past, I heard two good examples of bullheadedness or stubbornness on the air. It was evening, and a local net started at the prescribed time on the prescribed frequency. The only problem was that a very strong CW station was already on that frequency. The net proceeded on the frequency anyway, and the

whole net mostly consisted of complaining about the QRM. Now all that had to be done was to move down a couple of kilohertz and the problem would have been over.

On a second evening, it was also a local net. It opened up on top of a QSO, and possibly on top of another net in another province. The QRM was horrible, and again, almost every station that checked in complained. As in the first example, the problem was totally avoidable. The net control station could have just moved down a couple of kilohertz, leaving both groups in the clear.

These are only a few examples of bad operating practice found on the air. It cannot be called anything else. This is occurring more and more each day and should be cause of great concern. The government has deregulated us, and to a large extent, has left us on our own. Let us show that we can handle our new responsibilities. The spectrum we occupy is desired by many others, and if we let our hobby degenerate as GRS did, it will consume itself and no longer exist.

Before you hit the push-to-talk to tell a fellow amateur that he or she is doing something wrong, consider *what* you are doing. Put the brain in gear before you push that button. Everyone makes mistakes. Most of us appreciate constructive criticism, but much depends on how the message is delivered. Let's try to get our "friendly airwaves" back again. It depends on you and me. —Lorne Ingry, VE6AWI

GENDER NEUTRALITY

Last month on this page, we had some fun with the problem of gender-specific language in Amateur Radio. We want you to know that we do take the issue seriously. We often receive manuscripts that assume that all amateurs are men. Such manuscripts are subject to ruthless editing with "he" becoming "he or she" and "his" becoming "his or her". Sometimes whole sections are rewritten to bring them into line with the reality that there are women in Amateur Radio.

VE5JML's statistics for Saskatchewan (see this month's Section News) probably hold true for most of Canada. In Saskatchewan, there are 14 licensed OMs for every licensed YL or XYL. But as roles for men and women continue to change, that ratio will likely change. In the future, there will be a greater numbers of women in Amateur Radio.

We'll try to reflect this fact in the pages *QST Canada*. Just don't expect us to adopt QLLADPU!—Harry MacLean, VE3GRO

All letters are considered carefully. Letters are edited for clarity and may be condensed in order to have more information and readers' views presented. The publishers of *QST Canada* assume no responsibility for statements made by correspondents.

SSB

I would like to suggest that some standardization be recommended re the use of upper and lower sideband. I feel that the accepted practice of using certain sidebands on certain bands should be reconsidered. As pointed out in an earlier letter, "It seems to me that the initial reason for having various sidebands on the HF bands was really a technical one related to the use of a 5-MHz VFO and a 9-MHz IF. Surely this reasoning is no longer valid with today's equipment."

I have made queries during the past three years, but I have yet to hear a reasonable argument for the status quo. I believe

the situation has just been accepted as fact.

With all the commercial activity on upper sideband, and many radio amateurs operating aero mobile, it would be sad if an emergency occurred and was missed because the aero mobile was on upper sideband and we were on lower sideband in the 40-, 80- or 160-metre band.

Most manufacturers have chosen to design their rigs around an upper-sideband concept for CW. Now with deregulation, especially on 40 metres, the situation is further aggravated with CW on "upper sideband" and voice on lower-sideband voice QRMing each other. Whenever this hap-

pens, net controllers often make ridiculous remarks, threatening to report to DOC and the like. But the CW stations are on just on upper sideband, and in many cases, they are using narrow filters. They are not even aware of the fact that they are QRMing a SSB station.

I think it is time for a change. It is time to use upper sideband on all bands. —Jim Ayerst, VE2XX

Calendar



Attention: Deadline for items is the 20th of the second month preceding month of publication. For example, information should reach *QST Canada* by January 20 to be included in a March issue.

Hermion, ME: Bangor Hamfest, June 1 at Hermion Elementary School. Sponsored by Pine State ARC. Opens at 0800. Admission \$2. Three campgrounds near hamfest. Talk-in on 146.94 MHz (-). For more information, contact Roger Dole, KA1TKS, Box 330, Bangor, ME 04401, Tel (207) 848-3846.

Edmonton, AB: Edmonton Hamfest, May 24-26 at Namao School, Namao, Alberta. Sponsored by Northern ARC. Displays, demos, bunny hunts, guest speakers, ladies' program. Admission \$5, \$6 at the door. Saturday banquet \$15, \$17 at the door. Sunday breakfast \$5, \$6 at the door. Free wine and cheese party on Friday night. Talk-in on 147.06 MHz (-). For advance registration or more information, contact Edmonton Hamfest, 35 Woodcrest Ave, St Albert, AB T8N 3H5, Tel (403) 962-3751.

Halifax, NS: Down East Fleamarket, May 25 at Exhibition Park, Atlantic Winter Fair Grounds. Sponsored by Halifax and Dartmouth ARCs. Door prizes, canteen, free parking. Opens at 0900. Admission \$2. Tables \$6. Commercial tables \$20. For more information, contact the Down East Fleamarket Committee, Box 768, Bedford, NS B4A 3H5, or Burt Smith, VE1TNT, Tel (902) 435-3967.

Kitchener, ON: 17th Annual Central Ontario Amateur Radio Fleamarket, June 1 at Bingeman Park, 1380 Victoria St N (Highway 7). Sponsored by Guelph and Kitchener Waterloo ARCs. Opens at 0800, 0600 for vendors. Admission: \$5. Tables \$8. No outside vendors. Talk-in on VE3KSR, 146.97 MHz (-); VE3ZMG, 144.21 MHz (-) and 146.52-MHz simplex. For more information, contact Ray Jennings, VE3CZE, 61 Ottawa Cr, Guelph, ON N1E 2A8, Tel (519) 822-8342.

Maple Ridge, BC: Flea Market and Swap Meet, June 9 at Centennial Centre, 11944 224 St, just north of the Lougheed Highway 7. Sponsored by Maple Ridge ARC (MRARC). Opens 0900, 0800 for vendors. Admission \$1. Tables \$5. Talk-in on 146.80 MHz (-). For more information, contact MRARC, Box 292, Maple Ridge, BC V2X 7G2, Tel (604) 467-4511 or (604) 462-0201.

Tracy, PQ: Hamfest du Québec 1991, samedi et dimanche 25 et 26 mai au Club de Curling, Place Centre Civique. Examens, marché au puce, concours de cartes QSL, exposants commerciaux, conférences. Inscription pour la journée 5\$. Table intérieure 10\$, table extérieure 7\$. Examens 5\$. Le réseau routier VE3RBS, 145.37 MHz (-). Envoyez à Hamfest du Québec, Club Radioamateur Sorel-Tracy, Inc., CP 533, Sorel, PQ J3P 5N6.

Weston (Toronto), ON: Skywide Fleamarket, May 6 at Central United Church, 1 King St, Weston. Sponsored by Skywide ARC. Opens at 1800, 1600 for vendors. Admission \$3. Tables \$5 plus admission. Talk-in on 146.985 MHz (-) and 443.1 MHz (+). For more information, contact Mel Allen, VE3DOJ, 3423 Clanfield Cr, Mississauga, ON L4Y

The Canadian Radio Relay League, Inc La Ligue Canadienne de la Radio Amateur, Inc



The Canadian Radio Relay League (CRRL) is a noncommercial association of radio amateurs organized for the promotion of Amateur Radio communications and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of radio amateurs in legislative and other matters, and for the maintenance of fraternalism and a high standard of conduct.

CRRL is incorporated under the Canada Corporations Act. Its affairs are governed by a seven-member Board of Directors elected every two years by the CRRL general membership. CRRL is noncommercial, and no one who could gain financially by the shaping of its affairs is eligible for membership on its Board.

CRRL is the Canadian member-society of the International Amateur Radio Union (IARU). "Of, by and for the Canadian Radio Amateur", CRRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement in amateur affairs.

A bona fide interest in Amateur Radio is the only essential requirement for membership. An Amateur Radio licence is not required, although full voting membership is granted only to licensed amateurs in Canada.

Membership inquiries and general correspondence should be directed to CRRL Headquarters, Box 56, Arva, ON N0M 1C0 Tel (519) 660-1200.

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10 dB on 10 Metres—for Nothing

Well, almost nothing...! Part 1 deals with simple collinears.

By William Skidmore, VE3AUI
R. R. 1
Hyde Park, ON N0M 1Z0

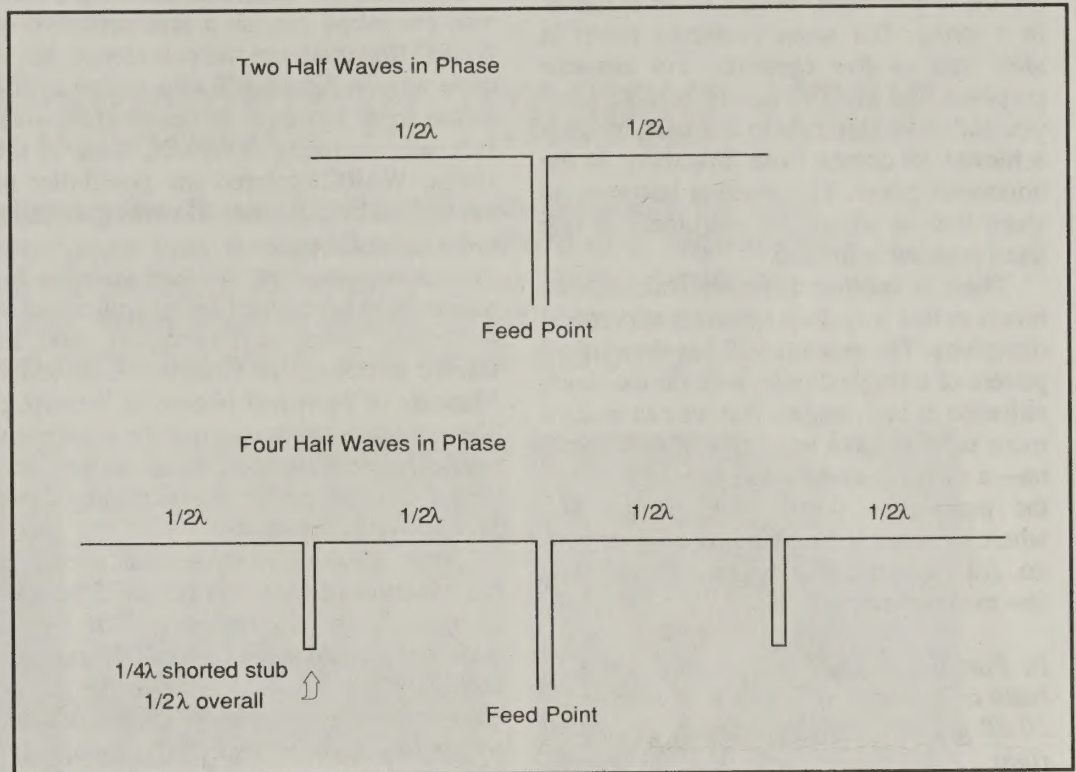
Have you ever wondered why the continuing interest in antennas among radio amateurs? After all, antennas are like most of the building projects and problems we used to face. Their challenges have passed into obscurity. Who nowadays worries about building stable VFOs, getting better sideband suppression, making a better product detector or even getting more power output? All of this has been taken care of by the RF engineers who have given us these little boxes to play with. And so we play with them. But the antennas we hook up to these boxes have remained a subject of great interest—even to amateurs who have no intention of actually building an antenna.

I think I have the answer to my question. It has two parts: 1. antennas are easy to understand, and 2. the principles involved have not changed since the earliest days of radio. All of us old-timers who have failed to stay anywhere near the leading edge of technology can still grasp the basics of antennas with little more than an hour or so of reading and study. We can even work on antennas if we want to, using cheap and available materials, with only minimal risk of electrocution or other misadventure.

At VE3AUI, I fit exactly the image of the out-of-date old-timer who doesn't want to spend an arm or a leg on some hare-brained electronic experiment which costs time and money, not to mention mathematical grief, computer analyses, touchy power dividers or acres of 200-foot towers, and I base all my antenna work on the two principles stated above.

The antenna project covered in this article is not new. It is not complicated. It does not require anything more than a minimum of time and effort with a calculator to figure out some lengths of wire (and a 15% error in this department is probably acceptable). It does not require great height, although you will need two supports, suitably spaced. Best of all, it does not require great knowledge. All you need is some wire and a few insulators. A bit of good-quality open wire line will be nice, but you can make the feedline yourself or use 300-ohm twinlead. You can even use coax. Does this sound like it has all the ingredients for a good antenna project? Then let's go.

Collinear Arrays



The two-element collinear above yields about 1.5 dB gain, the four-element below about 4.3 dB gain. Insulators at the ends, the stubs and the centre feed points are not shown.

One of the simplest ways to achieve gain in an antenna is to operate more than one antenna at the same time. There are numerous ways of doing this, but the simplest of all is to operate several half waves in phase. In-phase operation is easy to achieve in the typical amateur application, requires no current-distribution trickery, needs no touchy tuneup, and so on.

The simplest in-phase system is a two-element collinear, or the old "two half waves in phase". This is what you get when you operate your open-wire fed dipole on its second harmonic. A 20-metre dipole, centre-fed with open wire line is "two half waves in phase" on 10 metres. This antenna has a small amount of gain on 10, about 1.5 dB, which it achieves by narrowing the horizontal pattern, 90 degrees to the axis of the wire. In other words, it sharpens the broadside pattern. It does not change the vertical pattern at all.

If you like this, let's do some more. Imagine the dipole, now operated on its second harmonic as two half waves in phase. Where to put more half waves? The easiest place is just add them to the ends of the half waves already there. So get out your pliers and add another half wave to the end of each dipole. Separate these new

elements from the old ones with insulators. Now you have "four half waves in phase". Sounds pretty impressive, doesn't it?

There is just one catch. How do you feed these new elements you have just added? It is possible to do this with separate feedlines, but that's really messy. Let's just feed the new elements from the nearby ends of the old ones. We can take care of proper phase relationship by folding up a half wave of wire into a "U", and hooking the open ends of the "U" to the ends of the half-wave elements, right where they meet at the insulators. The "U" will be a quarter wave from top to bottom—about eight and one-half feet for 10 metres. It's what is called a "phase-reversing stub", and it puts the phase relationship of the half wave elements right where we want it.

Of course, we don't have to make the "U" out of wire to do the job. We can simply cut a quarter-wave piece of open wire line and short one end. Connect the other end, the open end, to the elements and you're in business.

By now, you're probably tired and want to try things out. Hook up an open wire line to the antenna (you'll need to use an antenna tuner with this method) or stub-match the antenna to coax (we'll tell you

ment collinear with about 4.3 dB gain broadside to the axis of the wires. For 10 metres, this is about the length of a 40-metre dipole, and it looks like one. It can only be recognized for what it is by the funny little eight and one-half-foot stubs dangling from the centres of each side of the antenna.

Vertical Directivity

Now, let's talk directivity. To get even more gain, it is theoretically possible to repeat the tricks just done, adding more elements in a string. But some problems creep in after four of five elements. For amateur purposes, the main difficulty is that, when you add more elements in this way, the gain achieved all comes from directivity in the horizontal plane. The antenna becomes so sharp that its all-around usefulness in one fixed position is limited.

There is another difficulty. Adding elements in this way does not improve vertical directivity. The antenna still has the vertical pattern of a single dipole, with far too much radiation at high angles. But we can make a more sophisticated array out of this antenna—a curtain—and get the vertical angle of the main lobe down near the horizon, where we want it for DX. It is quite easy to do. All you need is some more wire and a few more insulators.

In Part 2, VE3AUI will explain how to build a Sterba curtain that will yield up to 10 dB gain on 10 metres. The price will be right. ■

Ham-Ads



Advertisements must pertain to Amateur Radio. For individuals or firms offering products or services for sale, the rate is \$0.50 a word. This is reduced to \$0.25 per word for those seeking to dispose of or acquire personal station equipment. Telephone numbers count as one word. No charge for postal codes. Unless specified, a Ham-Ad will appear in the next available issue of *QST Canada*. Send Ham-Ads to CRRL, Box 7009, Station E, London, ON N5Y 4J9.

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FOR SALE: Hy-Gain 18AVT/WB vertical, 10–80 metres, used five years, \$75. VE3ATF, Box 804, Waterloo, ON N2J 4C2, Tel (519) 742-6160.

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The Story of VE4TTU

The following tells how the Winnipeg Amateur Radio Club (WARC) was able to secure a high-profile location for an active Amateur Radio station that now helps educate the public about our hobby and encourages interested individuals to acquire an Amateur Radio licence.

In the fall of 1989, I got a call from Jack, VE4DS, on the Manitoba Evening Phone Net. He asked me, as a representative of WARC (the club, not the conference, hi), if there was an Amateur Radio station set up in the local museum. It seems that when Jack was secretary of WARC back in the 1960s, WARC explored the possibility of having such a station. However, nothing ever came of the idea.

Jack was inquiring because updating his station from tube-type Collins equipment to something more state-of-the-art, and he wanted to donate his Collins S-Line to the Museum of Man and Nature in Winnipeg. The only stipulation was that the equipment would have to be used in an active radio station, and not just be put on display. I told Jack I would investigate.

After speaking with several people at the Museum of Man and Nature, I found a sympathetic ear in the person of Estelle Impey, Coordinator of Public Programs, including the Touch the Universe (TTU) gallery. This is a hands-on gallery devoted to teaching people, especially young people, about science. Estelle liked the idea of an Amateur Radio station and thought it would tie in nicely with a special children's exhibit being planned for April–July 1990. Mr George Wurtak, Director of Programs, and Dr Brian McKillop, Curator of Invertebrates, volunteered to work with us in establishing the station. Ian Swan from the museum staff did the construction work.

Jack agreed to donate the equipment. Jack told me that the S-Line originally belonged to his friend, John, K3ZVH. Back in 1960, when John was upgrading, Jack became the proud owner. Now, Jack wanted to have the equipment and the station operate as a tribute to John, a lifelong friend.

John—Dr. John Hutcheson, K3ZVH—was born in Park River, North Dakota, in 1905. At the age of eight, John built a wire-less set, and in his teens, he set up a business, building, selling and repairing radios. After graduating from the University of North Dakota with a BSEE in 1926, John joined the Westinghouse Company and made many contributions to the communications branch of electrical engineering. In 1943, he was awarded an Honorary Doctor of Science degree at UND. John retired from Westinghouse in 1965. Today, John is still active in Amateur Radio as K3ZVH.

After meeting to discuss what was involved, it was agreed that the station would be an experiment to see whether a

permanent station might be possible. The first task was to erect an antenna. A G5RV was donated by Gerry Hynes, VE4ACE. Yori, VE4ACX, Jim, VE3AJR and Ed, VE4YU, installed it on the roof. It was seven stories up and fed with 250 feet of coax! The station room was decorated with a map and QSL cards. The Collins S-Line, a 75S-3, 32S-3 and a 30L-3 linear were put into place. I guess the height of the antenna really helped—we were able to get out very well. A 2-metre rig and antenna were also installed. Callsign was VE4BB.

The project was a huge success. The station was manned during the week from noon to four, mainly by members of the Winnipeg Senior Citizens' Club. This activity was spearheaded by Jim, VE4AJR. On some days, several hundred students and their teachers passed through the exhibit. Much interest was shown in the Amateur Radio station, and a general information brochure was given to visitors.

At the end of the special exhibition, a meeting was held with the museum board. It was mutually agreed that a permanent station would be set up. The callsign VE4TTU, for "Touch the Universe" was chosen. This is the callsign that is used now. WARC applied for a grant that would purchase some state-of-the-art equipment complement the Collins gear, and for a computer and TNC for packet radio. Thus, more aspects of our hobby could be demonstrated.

At present, licensed amateurs operate VE4TTU on Saturdays and Sundays, 1–4 p.m., and at other times during the week. The primary operating band is 20 metres, but 15 and 10 metres are used as well. Ed Henderson, VE4YU, is custodian of the station.

Many interesting and interested people visit the station. The volunteers usually work in pairs. This allows one person to do the operating while the other explains what is going on. Visitors who show a particularly strong interest are referred to WARC licensing classes run by Tom, VE4AKI, and Bob, VE4ADE.

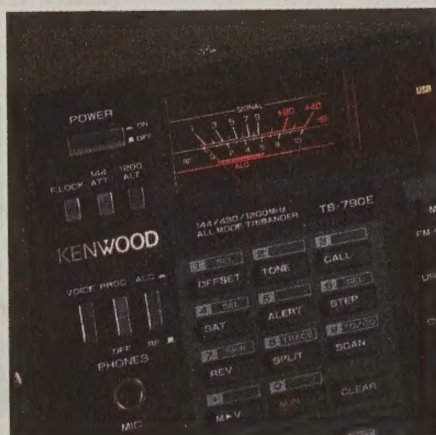
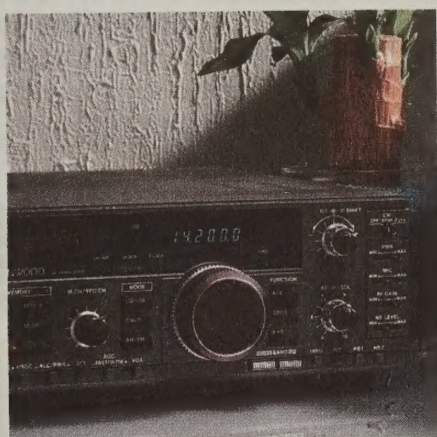
The following have helped make the VE4TTU project such a success: VE4s ACX, ADE, AJR, AKI, BOQ, CY, DAG, GDB, HK, JBN, JR, LA, LIL, PJ, RMB, SN, UU, VQ, WF, WU and YU. We are now attempting to set up a schedule that will allow us to have a network of museum stations across the country on the same frequency at the same time.

VE4TTU has been a positive venture for all those involved. We hope it continues for a long time. It does take some effort to come and operate the station, especially when one would rather be outside doing other things! But meeting people and getting new amateurs on the air makes it all worthwhile. —Ed Henderson, VE4YU. ■

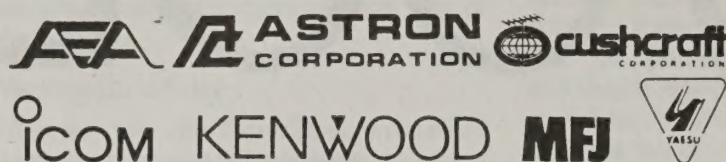
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| ● Michael | VE7CIP | ● Al | VE7DL |

Support

- | | | |
|----------|--------|----------|
| ● Brian | VE7BWM | ● Ellen |
| ● Doug | VE7HDL | ● Arlene |
| ● Robert | VE7HBC | |

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| <input type="checkbox"/> Antenna Supermarket | <input type="checkbox"/> Larsen |
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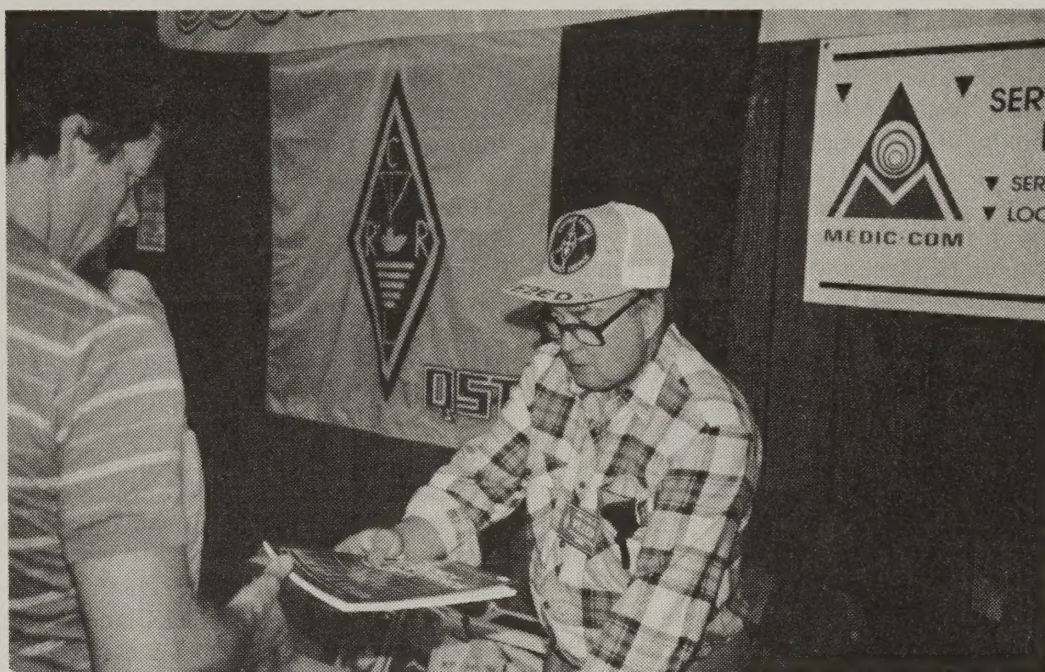
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IPARN Moves East

Representatives of the western-based IPARN, the Inter-Provincial Amateur Radio Network, recently met with representatives of Ontario repeater groups including the Toronto FM Society and the UHF Repeater Association. Purpose of the meeting: to lay the groundwork for linking repeater systems in the west and with similar systems in the east through the Anik C2 and E2 satellites. At present, IPARN uses Anik C2 to link repeater systems in British Columbia to systems in Alberta. Saskatchewan systems will soon be "on line", thanks to the Alberta-based SARA system, allowing amateurs in Regina and Saskatoon to communicate with their counterparts in Victoria and Vancouver using only handheld VHF or UHF transceivers. For more information about IPARN, contact its president, Bill Blake, VE7CQ, Box 3156, Langley, BC V3A 4R5, Attention: Department 391.



Jean-Serge Labelle, VE2ED, one of Quebec's most active Assistant Directors, tends the CRRL booth at last year's Quebec (Sorel-Tracy) Hamfest. This year's Quebec Hamfest will be held at on May 26.

CRRL BOARD MEETING

□ The CRRL Board will meet in Rexdale, Ontario, on May 31-June 1. This will be followed by a joint meeting with the CARF Board of Directors in Coburg, Ontario, on June 2. CRRL members having input for these meetings should contact their CRRL director—VE7EWI, VE6AFO, VE4XN, VE3FN, VE3YV, VE2YU or VE1UU—as soon as possible.

DOC NOTES

□ DOC has advised CRRL of this year's schedule for the Fisheries and Oceans Syledis positioning system in Ontario. This system, which operates on 432.5 MHz, was scheduled to be active in Hamilton Harbour during April 10-19, on Lake Simcoe during May 6-10, and on Lake Huron during May 13-October 4. In Hamilton Harbour and on Lake Simcoe, the system will be operating in a 100-milliwatt mode. Because of the larger distances involved, on Lake Huron it will be operating in a 20-watt mode. Interference to amateur operation, which has secondary status on the 430-450-MHz band, is expected to be minimal.

□ DOC recently released an updated version of RIC-17, Electromagnetic Immunity (Radiosensitive Equipment). Only two manufacturers, Matsushita and Toshiba, supplied information on how to contact company officials to solve EMI problems.

□ As reported in the February *QST Canada*, "Ottawa Mailbox" column, DOC may be considering reallocating the Canadian 220-225-MHz amateur band to a commercial service. DOC is expected to give official indication in its 30-890-MHz

spectrum policy paper, to be released later this year. CRRL is strongly opposed to any such reallocation.

□ DOC recently fined a Montreal-area man \$2500 for illegal possession of radio equipment intended for operation in the FM broadcast band and on channel 15 of the UHF television band.

ACROSS THE COUNTRY

□ RCI, Radio Canada International, the shortwave service service of the CBC, learned this week that, for the next five years, its budget will be cut from \$20 million a year to some \$13.5 million year. The fact that there is money at all "saves" RCI, as promised last week by Prime Minister Mulroney, but will require RCI to lay off about half of its staff and drop broadcasts in nine of its fourteen languages. Fourteen programs currently produced in French or English will also be dropped and replaced by domestic programming from CBC's national networks.

□ Early in April, CRRL learned that Hobbytronics of St-Laurent, Quebec, a steady advertiser in both *QST Canada* and *The Canadian Amateur*, was no longer in business. At press time, general enquires were being directed to Gilles M. Tremblay Associates, 1911 rue Baile, Montreal, Quebec H3H 1P6. Equipment held for warranty work or repair had been identified and was in the custody of Progressive Electronics and Communications, telephone (514) 339-9775.

□ VE2JBF, VE2SEI and others, all members of West Island (Point Claire, Quebec) Amateur Radio Club, are organizing a DXpedition to St. Pauls Island (CYØ) for the end of July. St Pauls, located about 30 kilometres north of Cape Breton, is not part of any Canadian province. Instead, it is administered directly from Ottawa. For this reason, and because it is an island, it is regarded as a separate DXCC country.

□ Work is under way to have a tribute to Brit Fader, VE1FQ, placed in the Signals Museum in Kingston, Ontario. Brit, a stalwart member of CFARS, the Canadian Forces Affiliated Radio Service, passed away last year at the age of 78.

□ Prefix hunters take note. To commemorate the 50th Anniversary of the Avro Lancaster, special-event station XL3CWHM will be active from the Canadian Warplane Heritage Museum, Hamilton Airport, 0800-1800 EDT, on May 4. On May 9-10, special-event station VE3OPP (Ontario Provincial Police) will be active on 80, 40 and 2 metres from the Bobby Orr Community Centre in Parry Sound, Ontario. Yes, they'll all be police officers operating this station.

SOUTH OF THE BORDER

□ According to several sources, the US FCC is conducting a nationwide survey to see if overall power limits in the US Amateur Service are too high. Apparently FCC radio inspectors have been making

They place a wattmeter in the feedline to the antenna and ask the amateur to gradually reduce power to see if contact can be maintained. For the most part, the FCC inspectors have been friendly, courteous and professional—but they have been totally evasive about the reasons for their visits. An article in the *Westlink Report* speculated that some individuals in the FCC may be trying to intimidate amateurs in the wake of the US Amateur Radio community's challenge to the FCC decision to reallocate a portion of the 220-MHz amateur band. That challenge, which lasted for two and one-half years, cost the FCC money and resulted in major loss of prestige for certain individuals in the FCC hierarchy.

□ ARRL is calling for papers for the 10th Computer Networking Conference, to be hosted by the Northern California Packet Association and held in the San Francisco area on September 26-27. Those wishing to submit papers should contact Lori Weinberg, ARRL Headquarters, 225 Main Street, Newington, Connecticut 06111. The 9th Computer Networking Conference was hosted by CRRL and held in London, Ontario. It attracted over 130 packet radio enthusiasts from North America and Europe.

□ According to several sources, at WARC-92, the US FCC will propose turning over most amateur frequencies in the 13-centimetre (2300-MHz) range to a new satellite-based digital audio service. This would leave only 2300-2310 MHz for use by amateurs on secondary non-interfering basis.

□ An ARRL request to have amateurs share the 220-222-MHz band, recently reallocated to the US Land Mobile Service, has been denied. According to the *W5YI Report*, amateur move-out day will likely be 1991 August 01.

VHF NOTES

□ ARRL sponsors the January VHF Sweepstakes and the June and September VHF QSO parties. Starting with the June

QSO Party, there will be a new "rover" category for single stations with one or two operators that move among two or more grid squares during the contest. There will also be a new "limited multi-operator" category for multioperator stations that submit QSOs for score on a maximum of four bands.

□ In connection with the VHF contests mentioned above, the Toronto VHF-UHF Society has initiated a contest awards program to promote VHF-UHF activity in Canada. To equalize competition, Canada has been divided into three regions: Eastern (Newfoundland and Labrador, New Brunswick, Nova Scotia and Prince Edward Island), Central (Ontario and Quebec), and Western (British Columbia, Alberta, Saskatchewan, Manitoba, and the Yukon and Northwest Territories). For each contest, the following awards will be available, provided that significant effort or competition is evident. There will be four sets awards: Top Canadian Single Operator on each VHF-UHF band, Top Canadian Single Operator QRP (maximum 25 watts), Top Canadian Single Operator overall, and Top Canadian Multioperator. The latter will not be eligible for single-band awards. Submit logs, description of equipment used and comments within 30 days of each contest to Kevin Hobbs, Vice President Toronto VHF-UHF Society, c/o CIMTEK, 2526 Speers Road, Oakville, Ontario L6L 5M2.

INTERNATIONAL NOTES

□ The March issue of *Practical Wireless* reported the VK3 Incoming QSL Bureau in Victoria, Australia, was no longer in operation, and was even destroying cards. WIA, the Wireless Institute of Australia, has advised all IARU member-societies that this information is false, and that the VK3 bureau is operating normally. Address of the VK3 Incoming QSL Bureau is Box 757G, GPO Melbourne 3001 Australia.

□ *The Top Band Newsletter* for 160 metres, formerly published by Ivan

Payne, VE3DO (ex-VE3INQ), is now being published Roger Parsons, G3RBP, and Don Field, G3XTT. New address for the newsletter is Roger Parsons, 32 Windmill Lane, Ashbourne, Derby DE6 1EY England.

NOTES FROM ALL OVER

□ Many radio amateurs are also short-wave listeners. The Ontario DX Association (OXDA), Canada's largest shortwave listening club, operates an amateur net on 7.068 MHz every Sunday at 1700 UTC. Purpose of the net is to share shortwave listening tips, information and comments. For more information about the net or the association, contact OXDA at Box 161, Station A, Willowdale, Ontario M2N 5S8.

□ Five licensed amateurs, KB5AWP, N5QWL, N5RAW, N5RAX and N5SCW flew aboard the space shuttle Atlantis during the April 7 STS-37 mission. However, because of unexpected extra work in deploying an antenna for the Gamma Ray Observatory, amateur operation was light.

□ The R. L. Drake Company, well known in the 1960s and 70s for its high-quality amateur equipment, is about to re-enter the shortwave market. The R-8 receiver was to be shown at this year's Dayton Hamvention. It was expected to feature synchronous selectable sidebands, five IF filters, and a dynamic range of 100 dB. No word on whether a TR-8 amateur transceiver would follow.

□ As of April 15, the Defence of Amateur Radio Fund (DARF), established to help IARU defend our amateur frequencies at WARC-92, stood at \$13,758.10. If you have not yet contributed, please mail your cheque to DARF, c/o Tim Ellam, VE6SH, 107 Strathern Rise SW, Calgary, AB T3H 1R5.

□ The 1991 Dayton Hamvention Ham-of-the-Year Award went to John B. Johnson, W3BE, Chief of FCC's Private Radio Branch—the branch that is responsible for Amateur Radio. W3BE was recognized for over twenty years of service to Amateur Radio. ■



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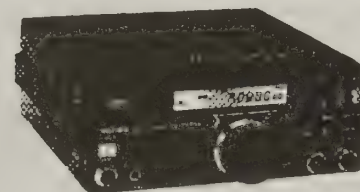
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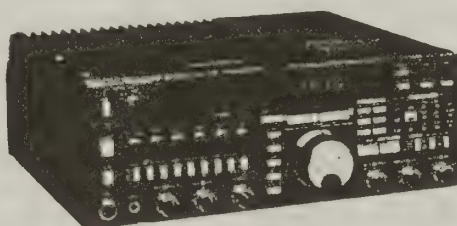
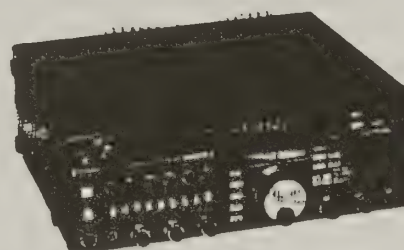
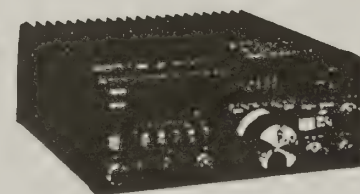
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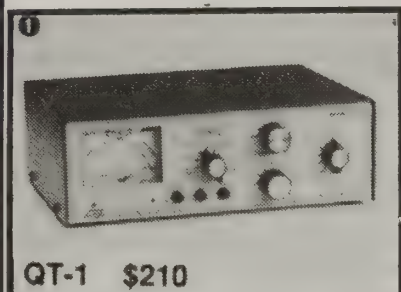
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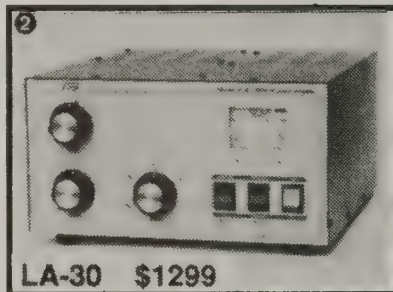
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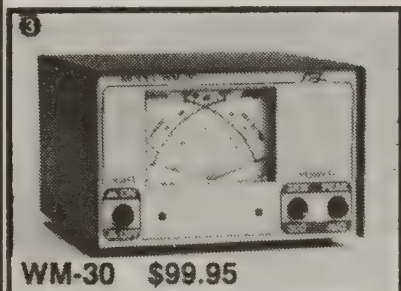
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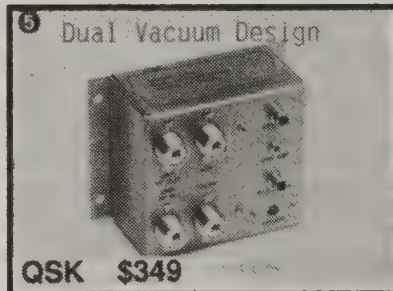
LA-30 \$1299



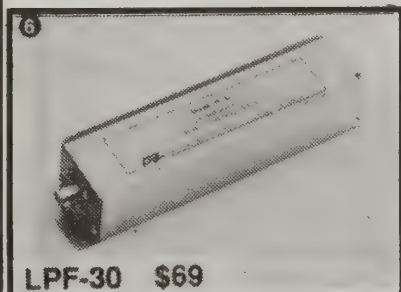
WM-30 \$99.95



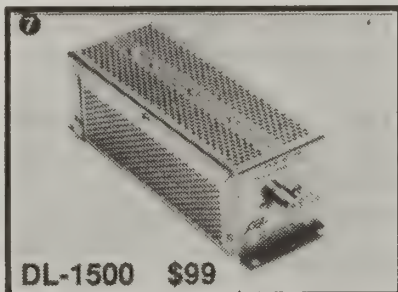
ET-1 \$169



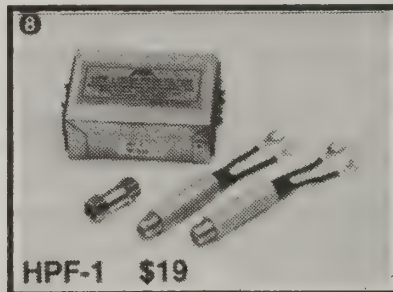
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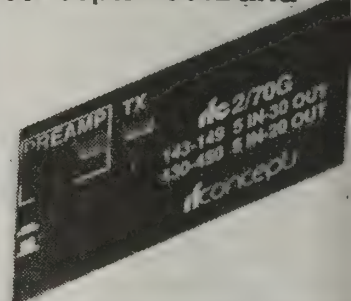


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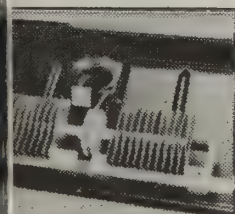
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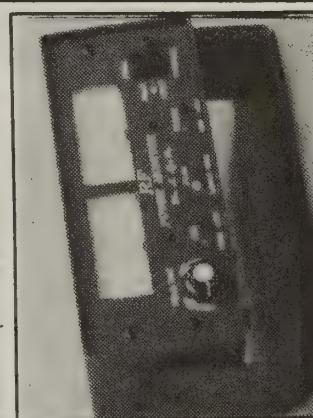
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The CRRL Field Organization Forum

SECTION MANAGER ELECTION NOTICE

To all CRRL members in the British Columbia and Ontario sections: You are hereby solicited for nominating petitions pursuant to an election for Section Manager. Because of space limitations, a full election notice will not be reproduced here. Nominating petitions will be received at the CRRL Headquarters office until 1600 EDT 1991 June 7. For additional details, see the 1991 April issue of *QST Canada* or contact CRRL Headquarters. —Jack Strangleman, VE3GV, Field Services Manager

REPORTS FOR FEBRUARY 1991

Alberta: SM: Don Wilcox, VE6CG; STM: VE6AKY; SEC/TC: VE6AFO; OO: VE6TY. After Amateur Radio classes finished in January, Northern Alberta ARC (NARC) was asked to hold more. On February 22, another 30 were enrolled. Congratulations to those passing over the past two months. NARC is planning to hold a hamfest on May 24–26, just north of Edmonton. This is the same place that a hamfest was held in 1989. Winter is again visiting Edmonton, but the end is nearly in sight. The 80-metre band has all but died over the past week or so. —VE6ABC

British Columbia: SM/SEC: Ernie Savage, VE7FB. British Columbia Public Service Net (BCPS, 3729 kHz) Manager Ford, VE7DDF reports January check-ins: high—231, low—150, and British Columbia Emergency Net (BCEN): Manager Ferdi, VE7EJU, reports 799 check-ins. We must say "thanks" to NCS VE7s CSI, BZV, EGM, VO, BCL, EJU, BCF and OM. Would be nice to have more help on RN-7 besides VE7s BNI, OM, CSI and EJU. We are hoping to have Angela, VE7ANG, back on the net. She has completed her Coast Guard training back east and is being posted in Vancouver. Thirty-five attended the BC FM Association (BCFMA) Annual General Meeting. It was a good meeting with Rick, VE7ABW elected as president and all other officers keeping their jobs. The president would appreciate more volunteers to help with maintenance work on antennas and construction of BCFMA's new building when the time comes. Listen to VE7RPT, Thursday nights, 2000 PST/PDT to find out how you can help. At time of writing, Wally, VE7CJT, our OBS, was still in hospital. Reports were that he was doing OK.

Manitoba: SM: Bill Crooks, VE4JR; ASM: VE4IX; STM: VE4JA, SEC: VE4VR; NMS: VE4LB, VE4IX, VE4TE. Dale, VE4AED, advises that Pinawa ARC recently graduated three new amateurs, and they expect three more in the near future. Good work, Pinawa! Dave, VE4XN, has provided an update on the Manitoba Amateur Radio Museum (MARM) in Austin. They have 106 founding members, 25 life members plus three "Friends of the Museum" who have made substantial donations. He also advises that the next general meeting for the museum will be held in the MARM building, Sunday, May 26, 1400 CDT. Everyone is welcome. Bill Bowman, VE4UB, has shut down VE4BBS after many years of operating bulletin boards on 2-metre and HF packet. We all offer Bill thanks for his many years of outstanding devotion and support for packet radio, as well as all the assistance he has given willingly to those who asked for his help. While tuning over the bands and checking into some of the many nets, it was noted that there

Reports invited: CRRL Section Managers (SMs) and their Section-level assistants coordinate traffic handling, emergency communications and bulletin service across Canada. Your SM (name and address appears on page 2 of this *QST Canada*) welcomes reports of individual and club activities for publication in this column. Activities do not have to be related to the CRRL Field Organization or to CRRL.

are a few individuals who take it upon themselves to tune up on net frequencies. Some just start transmitting without even checking to see if the frequency is occupied. Then they get quite adamant when told they are QRMing these nets or a QSO. Let's hope there are not too many of this type of individual.

Maritimes-Newfoundland: Acting SM: Carl Anderson, VE1UU; STM: Mel Lever, VE1VX; BM: Brent Taylor, VE1JH. No report available.

Ontario: SM: Larry Thivierge, VE3GT; BM: VE3GSA; SEC: VE3GV; STM: VE3CYR; TC: VE3EGO. Sault Ste. Marie amateurs, under the leadership of Emergency Coordinator Bert, VE3TNL, and his assistants, completed a successful simulated emergency exercise to test their skills in responding and also simultaneously test part of the Red Cross organization. Results were impressive. Bert said the recent exercise emphasized the importance and need for continuous practice in handling formal traffic. He went on to say that he knows a lot of people feel that there is no need for it, but formal traffic does leave a paper trail which is very important in an emergency. The paper trail is a necessity that enables reconstruction after the event, allows for precision instructions which cannot be translated or interpreted by the receiving operator, but must be passed on to the receiving person. Some of these formal messages contain important time-value instructions which are necessary to manage all disaster-related functions. The Ontario DX Association (OXDA) operates the OXDA Ham Net, Sundays at 1700 UTC, 7.068 MHz +/- . The purpose of this net is to share shortwave listening tips, information and comments. Everyone is welcome to call in or just listen. Congratulations to Scarborough ARC (SARC) on the occasion of its 45th Anniversary. VE3ROQ is the new editor of the SARC bulletin. CANWARN is about to enter its third year of operation in the Windsor area where it has been a success in the eyes of Environment Canada. VE3TRD, who recently received her ticket, is the XYL of OBS appointee VE3PPE. VE3OTH-1 has had a face-lift, so to speak. New BBS software, MYS 1.09, written by WA8BXN, which takes full advantage of the KISS mode of operation that many of the TAPR TNC-2 clones are capable of using, is being run on an IBM compatible. It is much more powerful than the software previously run on an Apple Macintosh system. VE3s BJD, JJY, JLN, MOR and RHT opened their shacks and provided hour-long demonstrations of Amateur Radio to cub packs in Dryden. VE3HKS is now VE3WR. New executive of Lake-of-the-Woods Amateur Radio Society is president—VE3EFY, vice-president—VE3NNB, and secretary-treasurer—VE3LMG. Congratulations to the flood of new amateurs (not "hammers") being heard on the air these days. Hopefully, this injection of new blood will have a positive impact on the hobby. It can, as long as we "old timers" extend a warm welcome to all and demonstrate some patience and courtesy. That way, we'll all be winners. By now, your Field Day planning should be in its final stages.

Quebec: SM: Harold Moreau, VE2BP; STM: VE2EDO; SEC: VE2LYC; BM: VE2ALE. The Sorel Hamfest will be held on May 26. More

details on your local repeater and PBBS. Douze candidats au cours de radioamateur de VE2CAM, St-Hyacinthe, ont obtenus leur certificat de radioamateur. Félicitations à tous ainsi qu'à Gilles, VE2AWE, le responsable des cours. Avec regret, j'ai à vous annoncer le décès de Paul-André, VE2EKJ. Voir votre poste de relais local pour plus de détails sur le Hamfest de Sorel qui aura lieu le 26 mai prochain.

Saskatchewan: SM: Joan Lloyd, VE5JML. Thanks to Regina amateurs Ron, 5BW; Greg, 5GW; Terry, 5AHW; Jerome, 5KZ; Jim, 5CS; Bill, 5IC; and Ekke, 5AFQ, for providing communications on February 24 to the 10 km and 5 km Sweetheart Run. From my database of VE5 call-signs, information current as of 1991 March 01: total calls issued—896, OMs licensed—783, YLs licensed—63, YL and OM both licensed—44, repeater and digipeaters—36, club calls—14, three or more members of the same family operating out of the same shack—7 families. Licensed OMs outnumber licensed YLs 14.2:1. One out of every 1216 Saskatchewan residents is a licensed radio amateur. Andy Babish, 5ZO; son Greg, 5GW; and grandson Brian, 5UK, of Regina are believed to be the only family in Saskatchewan with three generations of amateurs active. The Seebach family, with Mike, 5MAS, and sons Al, 5GAS; Blair, 5BWS; Brent, 5SWL; and Dale, 5HS, are believed to hold the record for the most members of one family holding amateur licences. Fortunately, they don't all share the same shack. Please send me any information on call-sign changes and new amateurs, on clubs and repeaters too, so I can update my database. Packet address is VE5JML @ VE5DA. ■

Silent Keys

Conducted By Ray Staines, VE3ZJ

It is with deep regret that we record the passing of these amateurs:

VE3BTQ, Jack Spall, Barrie, ON
VE3EAM, A. A. "Bert" Milligan, Toronto, ON
VE3KES, Edwin Smith, Pembroke, ON
VE3LKG, Gordon Marshall, Peterborough, ON
VE3PSL, Alan K. Granger, Goderich, ON
VE4DRM, David R. Morgan, Winnipeg, MB
VE5JS, John M. Shea, Regina, SK
VE6UC, Richard Jenkins, Ponoka, AB
VE7AKF, J. Wally Wicks, Victoria, BC
VE7GPS, Pete Sowden, Sidney, BC
VE7MI, Leon Ratner, Vancouver, BC
VO1FP, Wilson E. Day, St. John's, NF

Note: Silent Key reports sent to *QST Canada* must include name, address and call-sign of the reporter. To avoid unfortunate errors, reports are confirmed only through acknowledgement from the family of the deceased. Thus, those who report a Silent Key may not receive an acknowledgement from *QST Canada*. ■

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MAY 1991

HAMFEST SOREL TRACY 1991

Getting Started in VHF-UHF DXing

This month, we'll continue our introductory series for those interested in operating SSB/CW above 50 MHz. Last time I mentioned band planning, calling frequencies, skeds, mixer designs and the advantages of horizontal polarization. Let me stress that you need a good horizontal yagi to really enjoy SSB/CW on the VHF-UHF bands. If you don't radiate properly, you won't be heard.

This month I want to discuss tropo, and meteor shower activity. This is the time of year that brings gladness to the hearts of amateurs as Old Man Winter retreats and pleasant weather arrives. It's time to climb the tower, inspect the array—the driven elements, the phasing lines and the coax connectors, and if need be, do some repairs. Then it's time for DX.

Tropospheric bending or tropo can occur at any time of the year whenever a warm air mass overruns a cool air mass. Check out the weather maps. Look for slow moving high pressure systems. These systems sometimes form long fronts stretching, for example, from Montreal to the Gulf of Mexico. If conditions are right, and the front moves slowly or stalls, you will likely hear DX.

Tropo can also occur when there is a rapid cooling of the air near the ground. Look for warm days followed by cool, clear nights. The clear sky allows the air near the ground to cool faster than the air above, creating a temperature inversion

that can enhance propagation out to about 500 miles.

The best way to keep tabs on potential DX situations is to monitor local DX calling frequencies or set up regular skeds with stations a few hundred miles away. Propagation beacons offer a more passive way of checking. Listen on the beacon frequencies listed in the ARRL *Repeater Directory*. If there are no useful beacons in your area, listen on the channel of a distant repeater or to TV signals, or even monitor the FM broadcast band.

Meteor showers occur at regular times throughout the year. Radio amateurs have been using showers to work DX for over 50 years. This mode of propagation is not for the impatient ham. You must be ready to run skeds, operate with some degree of precision, and be aware of when a particular shower favours a certain direction.

Sounds complicated? Well it really isn't. To get the most bang for your buck, sit down a month or so before each shower and decide which province, state or grid squares you want to work. Then find an amateur in that area who is active on the band you are using. Call or write the amateur and ask if he or she would be willing to run skeds during the shower. Suggest some times, frequencies, and sequences. With any kind of luck you will get a prompt and favourable reply.

You are probably wondering what a sequence is. Meteor jockeys divide each minute into four periods of 15 seconds.

Each station transmits during two of the periods and listens during the other two. Generally, the western station transmits during the first and third sequence, and the eastern station transmits during the second and fourth. When a meteor enters the atmosphere, it burns up and leaves a trail of ionized particles at an altitude of about 100. If things are right, that trail will reflect radio signals over a distance of 1400–1600 miles at 144 MHz, for a period of time from a few seconds to well over a minute. It is during that time that radio amateurs exchange information—signal reports, and province, state or grid square.

To coordinate things, many amateurs across North America check into the VHF Net on 3.836 MHz, Monday evenings at 2100 EST (Tuesday mornings, 0100 UTC). Bryan Snyder, WA8MZQ (EN80), and Hal Perry, KC4YO (EM75), serve as net control. On a recent net many of the VE4, VE5 and VE6 gang were heard as well as the VE1 and VE3 crowd. The net is so popular that it sometimes lasts four hours, with stations sharing information and arranging skeds for various bands.

For tropo and meteor-shower fans, John, KØIFL, is now publishing a bulletin called *Terrestrial VHF*. It looks like a first-class publication and is available for US\$16 for the VE gang. Drop John a note at Box 554, Union, MO, USA, 63084, Tel (314) 742-4879. Tell him you heard about it in *QST Canada*. ■

ACTIVITY REPORTS

50 MHz: On February 5, with the flux sliding back toward that 200 count, Len, VE3BGH, reported hearing PYØFF over S9 between 1524 and 1535 UTC on 50.115 MHz. He also reported hearing the OH1SIX beacon and possibly the new SK6SIX Swedish beacon (JO57) on 50.080 MHz as well. From the east coast, Mike, VE1XDX, writes that he had much success in February. On February 1, with the flux at 357 between 1300 and 1500 UTC, he contacted 9Y4VU, PYØFF, HC2FG, TI2NA and CT1LN. February 2 brought little DX except for African station 6W1QC at 1445 UTC. Things were spotty during the rest of the month until February 24, 1100 UTC. That's when the ZBØW, F, ON, PAØ, G, IK1MTZ, IK1LUT, IØAMU, DF8XR, and DF7VX were heard. HC5K was last in at 1450 UTC. Mike continues to work the world on 6 metres from Nova Scotia, and we're sure he will enjoy the upcoming sporadic-E season and the June contest.

From Ontario, Dennis, VE3ASO (FN25), had KB6SL/CE3 in for many hours March 9 and 10. While signals were not very strong, they were consistent. According to KB6SL/CE3 writing in the *50-MHz DX Bulletin*, DX beacons in the form of Chilean elevator music stations can be heard

on 47.9-MHz and 47.835-MHz wideband FM. From New Zealand, keep an eye on 50.740, 50.750 and 50.760 wideband-FM TV audio. These frequencies can certainly be handy for finding band openings.

Also according to the *50-MHz DX Bulletin*, VQ9TB on Diego Garcia awaits a 6-metre yagi to be QRV. QSL via Box 55, FPO San Francisco, CA 96685. XQØX on San Felix will be on 6 metres shortly. At present, he can be found on 7.038-MHz SSB after 0100 UTC. PYØFF requests that stations send two IRCs for a return QSL. Please do not send US dollar bills. VP9HE is now QRV on 6 metres. Look for him on the 28.885-MHz liaison frequency. VP8CEX and VP8CEN are active daily from the Falkland Islands, 1600–0300 UTC, with 25 watts and three elements. QSL to Box 260 MPA, Port Stanley, Falkland Islands. St. Peter and Paul Rocks (PYØS) will probably be activated in May by the Natal DX Group. Let's hope they will be very active on 6 and that the propagation gods bring their signals into the Great White North!

144 MHz: VE3BGH continues the Gaslight Net nightly on 144.24 MHz at 2000 EST/EDT. If you live in southern Ontario, don't forget to check in. Aurora has been big news on 2 metres. During

March, numerous large flares brought DX openings from Ontario to the midwestern US. Ray, VE3FN (FN25), reported working VE2CHJ (FN07) during one of the auroras and advised that he will become more active during the summer. Welcome to Bob, VE3YCO, new to the band and running a Kenwood TR-751A and a homebrew 14-element yagi.

220 MHz: Well the bad news is that the majority of our American brothers have moved or are moving to 222.1–222.2 MHz. Kevin, VE3KDH, and Dennis, VE3ASO, have already scaled their 220-MHz antennas to 222.2 MHz (this is the SSB calling frequency) and the rest of us will be joining them shortly. Don't forget the 125-cm band for DX during the contest season and summer. The band is quiet and often affords better DX than 144 MHz. Look for super tropo enhancement, aurora and meteor scatter.

Band planning continues to be the main topic for the new-look 125-cm band. It appears that narrowband modes like SSB and CW will use 222.0, 222.3 or 222.4 MHz, with repeaters and packet assignments shifted as little as possible. More details as they develop.

432 MHz: According to Ken, VE6AFO, the Calgary gang has been having quite a time work-

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TH-27A/47A

2 m and 70 cm Super Compact HTs

Here is a great new addition to Kenwood's HT family — the all new TH-27A for 2 meters and TH-47A for 70 cm! Super compact and beautifully designed, these pocket-sized twins give you full-size performance.

- **Large capacity NiCd battery pack supplied.** The standard battery pack is 7.2 volts, 700 mAh, providing extended transmit time with 2.5 watts. (TH-47A: 1.5 W.)
- **Extended receive coverage.** TH-27A: 118–165 MHz; TH-47A: 438–449,995 MHz. TX on Amateur bands only, (TH-27A modifiable for MARS/CAP. Permits required. Specifications guaranteed for Amateur bands only.)
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- **Five watts output** when operated with PB-14 battery pack or 13.8 volts.
- **T-Alert for quiet monitoring.** Tone Alert beeps when squelch is opened.
- **Auto battery saver, auto power off function, and economy power mode extends battery life.**
- **DTMF memory.** The DTMF memory function can be used as an auto-dialer. All characters from the 16-key pad can be stored, allowing repeater control codes to be stored!

- **41 memories.** All channels store receive and transmit separately for "odd split."
- **DC direct in operation.** Allows external DC to be used (7.2 – 16 volts). When external power is used, the batteries are being charged. (PB-13 only.)

Optional accessories:

- **BC-14:** Wall charger for PB-13, 14
- **BC-15:** Rapid charger for PB-13, 14
- **BH-6:** Swivel mount
- **BT-8:** Six cell AA Alkaline battery case
- **HMC-2:** Headset with VOX and PTT
- **PB-13:** 7.2 V, 700 mAh NiCd pack
- **PB-14:** 12 V, 300 mAh NiCd pack
- **PG-3F:** DC cable with filter and cigarette lighter plug
- **PG-2W:** DC cable
- **SC-30:** Soft case
- **SMC-31:** Standard speaker mic
- **SMC-32:** Compact speaker mic
- **SMC-33:** Compact speaker mic with controls
- **WR-2:** Water resistant bag.



- **Automatic offset selection (TH-27A).**
- **Direct keyboard frequency entry.** The rotary dial can also be used to select memory, frequency, frequency step, CTCSS, and scan direction.
- **CTCSS encode/decode built-in.**
- **Supplied accessories:** Rubber flex antenna, battery pack, wall charger, belt hook, wrist strap, dust caps.

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KENWOOD

...pacesetter in Amateur Radio

ing 432 into VE5LYs QTH in Regina. It looks like this is a good path with consistent signals. Keep it up, fellows. In addition, Ken's new EME array is working quite well. His eight K1FO 25-element yagis are fully steerable in azimuth, elevation and polarity. Ken has devised an ingenious method for changing yagi polarity using sleeve bearings and linkages. Drop him a note if you are interested in duplicating his system.

902 MHz: Stu, VE2FUT (FN25), reports that he will be QRV on 903.1 MHz with a transverter and a bit of power for the June contest.

1296 MHz: Clarke, VE3WCB, continues to chase DX on 23 cm. He recently coaxed WA2BTW onto the band and they have been able to make contact regularly. Clarke is on 1296.1 MHz calling CQ in various directions at 1930 local time. His QTH is in Milton, Ontario.

Peter VE3EMS, Hans VE3CRU, Clarke VE3WCB, Tony VE3DIR and John WA2BTW have all been skedding on 23 cm. They had great success on April 5 and April 7, with the warm weather in full force. Signals between their QTHs were way over S9, despite WA2BTW only running 800 milliwatts! They will soon be upgrading their stations with bigger antennas, preamps and power amplifiers.

10 GHz: Well, Toronto seems to be becoming a hotbed of 10-GHz (3 cm) activity with the arrival of a quantity of surplus Tellurometers. These are basically sophisticated radio survey devices which include a full duplex FM voice channel. The receiver is tuneable, and they have been used to make contacts of well over 100 miles. Stations active in the Toronto area include Stu, VE3MWM, Dick, VE3FAC, Bob, VE3FVW, Peter VE3EMS, and Dana, VE3DSS, with more to follow. Incidentally, Dick and Bob's best DX while testing their units is about 300 yards. Dick wants to try some DXing over Lake Ontario from the Scarborough Bluffs, and Ray, VE3FN, wants to try it from the Gatineau Hills out over Lake Ontario. Look out for 3-cm DX!

JUNE CONTEST NEWS

□ According to *Terrestrial VHF*, on June 6–11, the Carolina DX Association will be operating from Bermuda on 6 and 2 metres, Oscar 13 and HF. Look for the beacon on 50.085 MHz using the call WA4VCC/VP9. Also look for Clint, VE6CMM, and Jim, VE6JEM, during the contest. We hope that they will be active on 6, 2, 432 and 1296 from their DATABUS (it looks like a converted SKULEBUS to me), from their magic QTH near Rocky Mountain House. It appears they want to give the VE6NOV gang a run for its money.

□ The Toronto VHF Society sponsors a certificate program for Canadian VHF activity. Separate awards are available for each of the three regions of Canada, East (VE1, VO1–2 and VY2), Central (VE2–3), and Western (VE4–8 and VY1). Awards are presented to stations who demonstrate significant effort in their region. There are QRP, microwave, FM only and rover categories. Don't forget to send a copy of your log within 30 days of the contest to Kevin Hobbs, VE3KDH, c/o CIMTEK, 2526 Speers Rd, Oakville, ON, L6L 5M2. Incidentally, for those who can make it, the traditional post-contest "do" will be held at Clarke, VE3WCB's QTH. Dick, VE3FAC, will give a talk on robotics. We look forward to seeing you at the "do"! Remember: *Contesting is Fun!*

THANKS!

Thanks to everyone who sent in reports this month. See you in the contest—barring any last-minute deliveries by the stork at the VE3DSS QTH! ■



Ham Heaven For Sale

Six acres on a hill in beautiful Medonte Township, 20 miles from Barrie, Ontario, 10 miles from Midland. 15 minutes to the ski hills, 15 minutes to Georgian Bay. A custom-built home in perfect repair, lots of cold, clear water, all kinds of mature trees and a mini-orchard. Home is 3000 square feet, open concept with a cathedral ceiling, three large bedrooms and a 30- x 16-foot family room with 200 feet of built-in bookshelves, and two workshops, all equipped.

Roof overhangs are three feet. Everything outside is cedar and thermoglass. Choice of oil, wood or electric heating. 62 separate breaker circuits all in #12 wire.

You name it, it's here—not added but built in: central vac, security system and more. For the amateur, there's an underground 2-inch conduit with five coax lines, rotor cables and relay wiring leading to a 70-foot custom-built Samson tilt-over tower complete with Hy-Gain TH6 tribander and a television antenna.

Medonte Pines is on a quiet "no-exit" sideroad next to a nature paradise for wildlife. The home and generous three-car garage (25 x 35 feet) is built on a 100-year old barn foundation, professionally restored. There are two massive fireplaces, one of field stone, the other of old brick. The main living area is "cathedral" with 32-foot 10- x 16-inch fir beams. The solarium is tiled and the garage is steel beam. There is also a 260-square foot guest cabin, insulated, built matching design.

There are many, many more features, many of which would be of particular interest to another ham operator. Reason for selling: medical. Visits by appointment only. Call (705) 835-6341. —Arthur Gee, VE3DHQ, R. R. 1, Midland, ON L4R 4K3. ■



A Badge of Honour

Quarter Century Wireless Assn.

(Founded 1947)



If you were first licensed 25 or more years ago, you can belong to the exclusive fraternity of QCWA. Join Southern Ontario Chapter 73—and exchange memories, experiences, banter and technical information with others of your own generation—at our twice-annual luncheon meetings and on weekly nets (Sundays at 0900 local time on 3773 kHz, and at 1300 local time on 7088 kHz). Special certificates and pins recognize those who have held an amateur licence for 50, 55 and 60 years. Our next get-together is scheduled for May 11 at the Mohawk Inn, Campbellville, Ontario, on the Guelph Line 100 yards north of Highway 401. Join us! Bring a friend, prospective member or not.

For fee schedule and application form, contact Secretary Fred Wilkinson, VE3AJW, R. R. 6, Simcoe, Ontario N3Y 4K5. ■

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C.O.D.

More about Tornados

According to Environment Canada, there have been four strong-to-violent tornados in the City of Windsor, Ontario, since 1945. Scores of people have been injured, 22 have been killed and property damage has amounted to well over \$2,000,000.

In the Ontario counties of Essex and Kent, including the city of Windsor, there have been 32 confirmed or probable tornados since 1974. On the average, one or two tornados may be expected every year in Essex county, and one every other year in Kent county. A significant tornado similar to the one in Barrie can be expected once every eight years in the Essex-Kent region.

Alberta Public Safety Services (APSS) has produced an informative folder entitled *What is a Tornado?* It describes how a tornado is formed and offers some excellent tips on how to protect your family, should a tornado touch down in your area. The booklet is available from APSS, Box 10000, Edmonton, AB T5J 2P4.

DETECTING TORNADOS ELECTRONICALLY

The National Safety Council has provided this tip on how you can use your radio or television set to detect tornados:

"Using your television: Warm up your television and tune to channel 13. Darken the screen to almost black using the brightness control. [It is assumed the television is connected to an outside antenna, not a CATV system.]

"Your tornado detection device is now in operation. Lightning will produce momentary white bands of varying widths across your screen (colour sets produce coloured bands). A tornado within 15 or 20 miles will produce a totally white screen and remain white (colour on colour sets). Should this occur, turn off your television, take a portable radio and seek shelter immediately. [How does it work? Apparently, lightning and tornados generate VHF signals that can override the brightness control on your television set.]

"Using your radio: Use a portable radio for emergency instructions and in case of power failure. If the radio is tuned to 550 kHz, lightning will cause intermittent static. A tornado will cause steady, continuous static.

"Most homes have these two warning devices. It might be well to clip these instructions and keep them on hand during the tornado season."

WEATHERADIO CANADA

We quote from a bulletin describing this important service. The bulletin was pro-

duced by the Communications Directorate, Atmospheric Environment Service, Environment Canada:

"Weatheradio Canada is a specialized radio network broadcasting only weather information. Designed to make weather information available over VHF-FM radio 24 hours a day, seven days a week, the

broadcasts provide vital weather information to those who need it. Special weather reports and forecasts are tailored to the needs of the general public, as well as marine, aviation, agriculture, recreation, travel, transportation and other users. Routine broadcasts include any weather conditions and a weather synopsis. The

Field Organization Reports February 1991

CRRL Section Emergency Coordinator Reports

Reports were received from the following SECs (DECs and ECs reporting to SECs are listed in brackets) denoting a total ARES membership of 1040.

Reporting	ARES Members
VE3GV (VE3s AFP, FFO, HEP, LFV LPM, OVV, SV, TNL)	613
VE4JR	56
VE6AFO	269
VE7FB	102

CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Divd	Total
VE1BTV	0	16	16	0	32
VE1ALU	2	13	13	1	29
VE1DLC	0	9	4	6	19
VE1YS	0	3	4	1	8
VE2GOP	0	35	0	35	70
VE2BP	2	17	9	19	47
VE2WH	1	12	8	13	34
VE2JN	1	5	2	4	12
VE2ALE	0	0	1	0	1
VE3ORN	10	148	136	27	321
VE3GNW	0	104	123	1	228
VE3GSQ	0	101	83	2	186
VE3CYR	1	85	52	6	144
VE3BCZ	7	48	55	4	114
VE3BDM	0	80	22	0	102
VE3DVE	0	45	56	0	101
VE3AJN	0	20	25	0	45
VE3GT	0	16	26	1	43
VE3LPM	0	16	11	10	37
VE3EUI	0	15	17	0	32
VE3NVJ	1	11	13	5	30
VE3SB	0	12	12	1	25
VE3MNI	0	4	8	4	16
VE3CVK	0	3	6	1	10
VE3BAJ	1	6	1	1	9
VE3WV	1	2	3	1	7
VE4JA	1	120	40	54	215
VE4FP	0	90	90	16	196
VE4JR	0	60	60	4	124
VE4STU	0	10	10	14	34
VE4LB	0	20	5	8	33
VE6XG	0	50	26	21	97
VE6CE	0	14	17	2	33
VE6CPP	1	0	13	13	27
VE6GUS	1	0	10	10	21
VE6AKY	0	3	3	6	12
VE6ABC	0	1	4	4	9
VE6EO	0	0	1	1	2
VE7BNI	14	127	204	30	375
VE7FAZ	1	66	73	7	147
VE7EJU	0	79	26	3	108
VE7XA	0	9	38	3	50
VE7CCJ	4	18	12	0	34
VE7EGM	2	17	12	2	33
VE7BCL	2	15	9	4	30
VE7ANG	0	20	9	0	29
VE7OM	0	11	11	1	23
VE7FB	0	9	5	4	18
VE7GKA	0	15	2	0	17

Call	Orig	Rcvd	Sent	Divd	Total
VE7BCF	0	9	6	0	15
VE7BZI	1	5	1	5	12
VE7DJ	0	6	4	0	10
VE7DWZ	0	4	1	1	6
VE7ALV	0	1	1	1	3

National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN (VE1YS)	21	109	32
KTN (VE3AJN)	12	84	7
OLN (VE3POJ)	24	468	37
OPN (VE3BDM)	28	606	221
OQN-I (VE3GSQ)	27	36	35
OQN-E (VE3CYR)	28	96	92
OQN-L (VE3GSQ)	26	50	21
MTN (VE4IX)	26	302	21
MMWX (VE4TE)	28	468	22
MEPN (VE4LB)	27	1285	127
APSN (VE6AKY)	31	1487	15
ATN (VE6CPP)	31	221	90
BCEN (VE7EJU)	28	799	285

Brass Pounders' League

This listing is available to amateurs who report to their SM a traffic total of 500 or a sum of originations and delivery points of 100 or more for any calendar month. All messages must be handled on amateur frequencies, using standard ARRL-CRRL form, within 48 hours of receipt.

BPL: None this month.

Public Service Honour Roll

This listing is available to amateurs whose public service performance during the month indicated qualifies for 60 or more points in the following nine categories (as reported to their SM). Please note maximum points for each category: (1) Checking into CW nets, 1 point each, max 30; (2) Checking into phone/RTTY nets, 1 point each, max 30; (3) NCS CW nets, 3 points each, max 12; (4) NCS phone/RTTY nets, 3 points each, max 12; (5) Performing assigned NTS liaison, 3 points each, max 12; (6) Delivering a formal message to a third party, 1 point each, no max; (7) Handling an emergency message, 5 points each, no max; (8) Serving as an EC or NM for an entire month, 5 points max; (9) Participating in a public-service event, 5 points each, no max. Amateurs who qualify for Public Service Honour Roll 12 consecutive months, or 18 months out of a 24-month period, will be awarded a special certificate from CRRL Headquarters.

PSHR: VE4JA (160), VE3ORN (116), VE4LB (114), VE3GNW (102), VE3BDM (91), VE4STU (91), VE3CYR (84), VE4FP (68), VE4JR (68)

Service and Specialized Nets

Independent Net Managers: Your monthly reports are welcomed. Send to CRRL, Box 7009, Station E, London, ON N5Y 4J9.

Net (Mgr)	Sess	QNI	QTC
ARES Canada (VE3GV)	4	115	1
ARES Ontario (VE3GV)	1	8	0
CRRL ONTARS (VE3FQV)	28	10356	0
Grey-Bruce (VE3BDM)	28	91	22
Grey-Bruce SS (VE3BDM)	28	106	46
Laurentian (VE3FGT)	28	860	0
Trans-Provincial (VE3EUI)	28	9909	22
Aurora-1 (VE4AHG)	28	1370	12
ARES Alberta (VE6AKY)	8	280	4

synopsis is intended to give background to the forecasts by describing associated changes in weather patterns.

"Weatheradio is a public service provided by the Atmospheric Environment Services of Environment Canada. Up-to-the minute weather reports are transmitted directly to all Weatheradio users on one of three assigned frequencies: 162.40 MHz, 162.475 MHz and 162.55 MHz. The average program cycle lasts about eight minutes and the recordings are routinely revised by Environment Canada's weather offices across the country.

"Radio receivers equipped with a special warning device can alert users of Weatheradio to the presence of severe weather automatically. The Weather Office uses a signal at a frequency of 1050 Hz to activate either a continuous-tone signal or a flashing light on the radio. When operated in muted mode, these radios are automatically turned on so that users will be notified of the severe weather threat. The "warning alarm" will interrupt the routine weather broadcasts and incorporate special warning messages into the normal program cycle until the severe weather has passed. "Warning alarm" radios are especially valuable for schools, hospitals, public-safety agencies and news media offices.

"Canada's first Weatheradio station was established in Victoria, British Columbia, in 1977, and the system has

grown steadily since then. The current Canadian network consists of 13 main stations and provides service in major areas of the country, together with 41 repeater stations which spread the signal even further."

Every ARES group should have the capability of monitoring Weatheradio Canada. It could make all the difference in coping with a hurricane, tornado or other form of severe weather.

MEMBERSHIP RECORDS

Several ARES groups have sent us information on how they record and retrieve data about the equipment and operating capabilities of their members. Most of the information of interest to an Emergency Coordinator (EC) will be available on the ARES Registration Form available from CRRL. On this form, the registrant records the modes, from CW to packet, for each band where the registrant is active. It also asks if the registrant's home station can be operated with emergency power.

York (Ontario) Region's form is similar, but expanded to include ATV, type of emergency power (battery, engine-driven generator, wind power, solar power, etc.) and activity levels. Information about activity levels can help determine the registrant's degree of interest in a wide variety of activities including conducting training, building or repairing equipment,

and participating in exercises. Beside each item, the registrant can rate his or her interest as "lead", "help", "maybe" or "forget it"! The form also asks about availability for exercises and for operation in a real emergency.

Curiously, none of these forms determines AMTOR ability. A question on AMTOR is included in the Kingston form. In emergency communications, we see a growing role for this error-free method of long distance communications.

Once a registration form is on hand for each member, it is easy to place all the information into a computer database and to design various reports to show information of immediate interest. Our Kingston report lists the stations available on each mode on each band, the operators who have taken Red Cross training, who have participated in the exercises, who have packet capability, and so on. These reports are in the hands of the EC and Assistant ECs, and are updated frequently. —Bob Boyd, VE3SV

MOVING?

For uninterrupted delivery of *QST* and/or *QST Canada*, please send your change of address notice to CRRL, Box 56, Arva, ON N0M 1C0 eight weeks before you move. Quote your callsign or the seven-digit number from your mailing label. ■

Consider the Benefits... ...And Join CRRL Today!

Consider the **benefits** and join **CRRL** today! You'll receive **QST Canada** and **QST** (either or both) monthly journals, and **free CRRL Outgoing QSL Service**. Your membership supports many important services to Canadian Amateur Radio: **representation to DOC** and other government agencies, **representation to IARU** (so important as we prepare for WARC-92), the Field Organization (**NTS, ARES, OBS**) for public service, the **incoming QSL bureau system**, and much, much more.

Count me in! Here's my application for **CRRL membership!**

	Cost	7% GST
<input type="checkbox"/> Basic CRRL membership : _____ years at \$15 per year: _____	_____	_____ none
<input type="checkbox"/> QST Canada monthly journal: _____ years at an additional \$12 per year: _____	_____	_____
<input type="checkbox"/> ARRL's QST monthly journal: _____ years at an additional \$31 per year: _____	_____	_____
Total amount enclosed (add cost of membership, monthly journals and any GST): _____		

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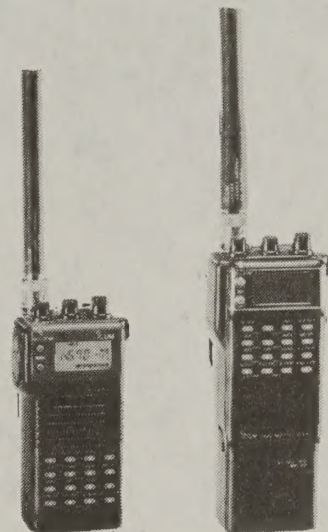
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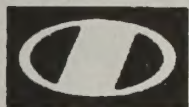
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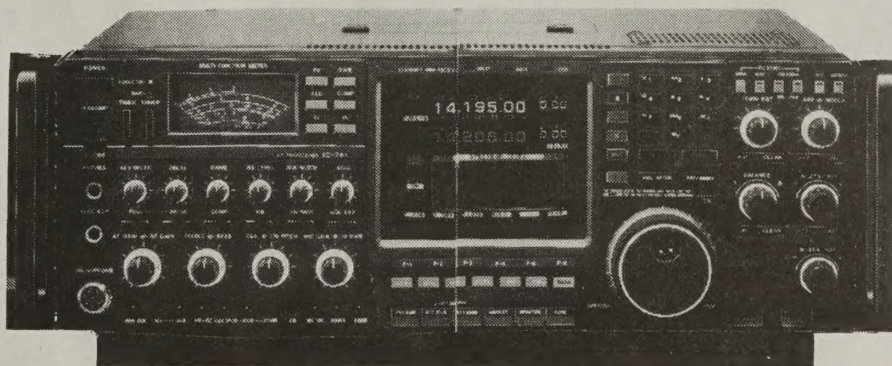


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of the compact IC-3220 are a built-in duplexer, simultaneous dual band receive, auto dialing and a memory transfer function. For full details and specs on the IC-24AT and IC-3220, call the **ICOM Brochure hotline at 1-800-999-9877**. See them today at your quality ICOM amateur dealer.


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